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OF THE

WEST VIRGINIA

Agricultural Experiment Station

MORGANTOWN, W. VA.

THE CANADA THISTLE.

C. F. MILLSPAUGH, M. D.

Botanist and Microscopist.

JOHN A. MYERS, Ph. D.

Director.

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C. F. MILLSPAUGH, PHOTO.

CANADA THISTLE.
(One Year's Growth.)

THE CANADA THISTLE.

(*Cnicus Arvensis* (L) *Hoffm.*)

There is probably no weed in the United States that attracts more fully the attention of the agriculturist, or is looked upon with so much disgust by him, as this miserable European immigrant; which came to our shores early in the history of their civilization, and has made itself so much at home.

The anxiety so strongly felt in this State on its account, is rightly exercised; for there is no greater vegetable bane to the lands, nor one harder to be rid of once it gains a rooting. This anxiety has already led to the mistaking of several of our less injurious weeds for this species, and gives impetus to a careful consideration of the plant at our hands. I am gratified to be able to say, that upon my many trips about the State, two stocks only of this vile weed have been met with(these were immediately destroyed)—proving that our task of keeping it entirely out is not a great one, and needs but a little knowledge of its character, and watchfulness over our fields, to crown with success. It is to the present scarcity of this plant that this special bulletin is due, recognizing as we do that more than ever in this instance the old saying about the timely stitch and its results is true.

The Canada Thistle is so widely different from any other growing here, that once seen and observed it need never after be mistaken. Its slender, rigidly erect stem, branching only near the top; its long and narrow prickly leaves; its numerous and small rose purple flower heads; and its extensively creeping roots, serve as characters not to be seen in any other form to which the name thistle might be applied. In the reproduction of the photograph here given, the

plant is reduced three times, and represents about one-third of the whole stem from which it was originally broken. The thistle thus grows from 2 to 3½ feet tall.

While in Randolph County making inquiries concerning this weed, two plants were pointed out to me as the Canada Thistle neither of which bore the least likeness to it. One of these plants was the Teasle, (*Dipsacus sylvestris, Mill*), a stout prickly stemed plant, having a few long-spined, dense heads about two or four inches long. This plant is another European gratuity for which we return no thanks; although it is probably our fault that it is with us, it having been brought here and cultivated that its heads might furnish cheap instruments for carding wool. This species has become a pernicious weed along road sides and waste places, where it grows plentifully throughout most portions of the state. The Teasle is easy to eradicate; cutting and burning before the seeds mature will soon remove it entirely from the land.

The other weed shown me as the Canada Thistle was the Blue-weed or Blue Thistle, (*Echium vulgare, L.,*) still another European tramp, which however bears no resemblance to the thistle, but which should by all means be as rigidly rooted out and as carefully destroyed. The Blue-weed may be known by its reddish-purple or brilliant blue flowers arranged in small close groups upon one side of each of the numerous branches. This plant grows in clumps about two feet high, and is entirely covered with bristly hairs, not prickles like in the thistles.

One other true thistle has often been mistaken for the Canada Thistle in this State, especially as (in the localities where I have heard it spoken of) it is of rather recent appearance. This is the Virginia Thistle, (*Cnicus Virginianus, Pursh.,*) readily recognized from the Canada Thistle by its large heads which tip the ends of long and naked branches, branchlets or probably peduncles, and its larger leaves being closely woolly beneath.

In drawing distinctions thus carefully, I do so to identify the Canada Thistle in such a manner that the agriculturist, may with a little observation, distinguish it; not meaning but that it is best to as fully destroy each and every one of the plants mentioned, as all are veritable pests, and should be as carefully exterminated as the Canada Thistle itself.

The life history of the Canada Thistle may be summarized as follows:

The seed, on germinating the first year, throws up a luxurious rosette of softly green leaves which clings closely to the soil or sod, no upright growth being produced. This and its enlargement represents one full seasons' growth. [See plate 9.]

The second year a new and more vigorous crown is added to this rosette, and from the center of this one or more lusty stems spring with a business-like mein. These stems throw off numerous leaves below and leafy branches above, which in due time put forth a profusion of flower heads in which the seed are rapidly matured. Here let me remark in italics: *Never trust a weed of this family after cut-*

CANADA THISTLE.

ting it down when in flower, for it will more frequently than otherwise ripen its seed sufficiently after cutting to reproduce. Burn it every time!

Close observation, however, reveals immediately that this is not all of the growth of the second year. While upon the surface of the ground a great show is being made of stem, leaf, and flower, a secret mission is accomplished below; a mission dark and threatening to our peace, for the roots are forming new rosettes at little distances from the parent plant, similar and complete as did the seed the first year. These, if left to grow, will progress next year causing trouble upon trouble with never ceasing multiplication.

Now, having a knowledge of all this, what is the best method for eradication to be employed in West Virginia, where the plants are now few and amenable to treatment?

Cut down and uproot carefully, every plant that bears any resemblance whatsoever to the picture in this bulletin, and burn it directly upon the spot it grows. The larger the fire, the better, it would be more profitable to use a barn or two for fuel than to allow this weed to grow and mature its seed.

Watch this spot the following season, look for the green prickly rosettes, if they appear turn them out carefully, and thoroughly, with a fork, hand-pick every rootlet in the earth so turned, and build another fire for them. Leave not so much as a fibre in the ground, and your labor will be repaid an hundred fold by complete rest on account of this weed in the future.

If at any time you desire information upon any plant of your farm or disease affecting the same, we will answer as fully as possible within our knowledge any questions you may see fit to address us either by letter or in person. In questioning us concerning a plant or disease, it is necessary however to send us a specimen of the same when possible, that no confusion as to species or misunderstanding of your description may arise. To do this wrap the green plant up in a whole newspaper and mail it to us. Postage rate one cent for two ounces.

It is my intention to issue during the coming season a complete account of the weeds of this State. To do so intelligently and honestly, I need the help of every West Virginian Agriculturalist who reads this article. I am only one man and can not conscientiously cover the whole State. I therefore ask you, for the benefit of your farms, to assist be by answering in pencil the question upon the last sheet of this bulletin, tearing the page out afterward and mailing to the West Virginia Agricultural Experiment Station, Morgantown, W. Va.

By doing this now, while, as I hope, you are interested in the subject, you will recive in return through the bulletins of this Station, the benefit of your neighbor's observations throughout the State.

1. What are the worst weeds upon your farm and roadsides...
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Write them in the order of their badness, beginning with the worst. When you mention one weed under two or more names, put all these names in brackets, as I have done under the 7th question.

2. Have you seen the Canada Thistle in the State; if so, where, and how much of it ?.....
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3. What do you do with your weed crop? Do you cut them? When? Do you compost them? How? or do you burn them?...
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4. Do you ever use any chemical or other remedies against weed growth? If so, what and for what weeds?.....
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5. Do you consider any of your weeds good fodder, if so, which and for what animals?.....
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6. Have any new weeds come to your farm lately? If so, please describe them carefully, giving the name you know them by
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7. Please draw a pencil mark through each of the following weeds that are now on your farm.

Burdock, Mullin, (Butter and Eggs, Toad Flax, Jacobs' Ladder) Pig Weed, Rag weed, Worm Wood, Shepherds' Purse, (Soap Wort, Bouncing Bet) Corn Cockle, (Evening Primrose, Wild Beet) Wild Carrot, Cows' Bane, Common Elder, Teasle, Iron Weed, (Queen of the Meadow, Quill Wort) White Top, Godden Rod, Clot or Cockle Burr, Spanish Needles, Dogs' Fennel, (Yarrow, Millefoil) Oxe-eye Daisy, Fire Weed, Common Thistle, Virginia Thistle, Tall Thistle, Sow Thistle, Common Plantain, Rib-wort Plantain (Viper's Bugloss, Blue Devils, Blue Thistle) Beggar's Lice, Bind Weed, Wild Sweet Potato, (Jimson Weed, Jamestown Weed, Stink Weed) Horse Nettle, Indian Hemp, (Dogs'-bane, Wild Cotton) Poke Root, Milk Weed, Bitter Dock, Skunk Cabbage, Field Garlic, (Broom Sedge, Nut Grass) Cheat-grass, Chess.

In cases where you do not know what plant is meant by the name here given, please draw a circle around that name.

8. What plants of your farm or woods do you use for family medicines, and for what ailments?.....
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